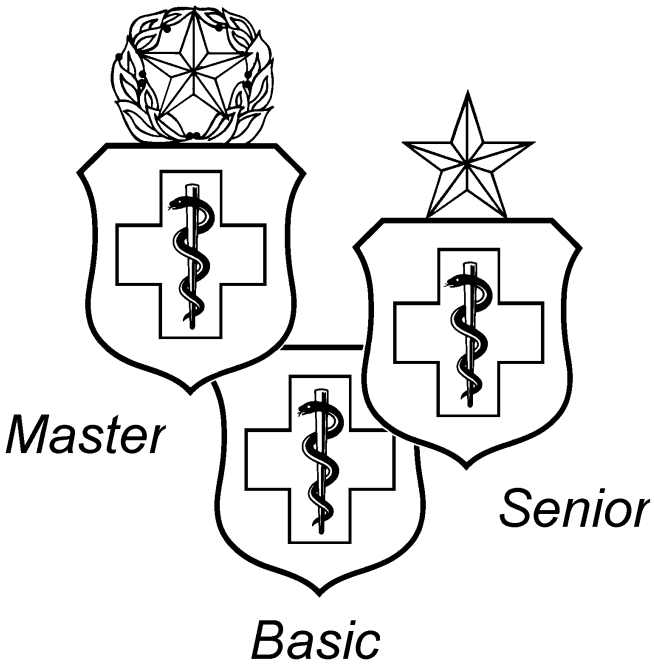
QTP 4N0X1-13
May 2005

MEDICAL SERVICE SPECIALTY

CRITICAL CARE



TRAINING THE BEST MEDICS FOR THE BEST AIR FORCE IN THE WORLD

383d Training Squadron/XUEAA
939 Missile Road STE 3
Sheppard Air Force Base, TX 76311-2262

QTP 4N0X1-13

MEDICAL SERVICE SPECIALTY CRITICAL CARE TECHNICIAN

Volume 13: Critical Care

TABLE OF CONTENTS

INTRODUCTION

1. These Qualification Training Packages (QTPs) were developed to enhance on-the-job training for *Aerospace Medical Service Specialty* personnel. As a trainer, the QTPs provide you with the breakdown of tasks into teachable elements. The teachable elements will help you to guide the trainee toward sufficient proficiency for task performance ***without assistance***. QTPs are also used by the task certifiers/certification official to evaluate trainees concerning tasks which need third-party certification.

2. Review each volume and identify which modules of QTPs are needed for the trainee's job position. Core task items are identified with the number "5" on the STS Column 2; these items are the minimum mandatory skills which are required for all 4N0X1 personnel to be proficient in performing. You have the flexibility to arrange training for each module in the order that you decide.

3. Review the subject-area tasks in each module with the trainee. Direct the trainee to review the training references to gain a better understanding of the objective for each module. If the trainee has any questions about the objective, clarify the behavior that is expected in the objective. Review the performance checklist with the trainee, and allow him/her sufficient time to learn each step (some objectives may take longer to teach). Remember--the objective of each QTP is to standardize training and to allow sufficient time for the trainee to learn each task thoroughly in order to perform the task ***without assistance***.

4. When the trainee receives sufficient training and is ready to be evaluated on an objective, follow the evaluation instructions. The performance checklist must be used as you evaluate each task objective. When the trainee successfully accomplishes the objective, document task completion appropriately in the six-part folder.

6. The QTP task completion is to be annotated on AF Form 1098, *Special Task Certification and Recurring Training*, filed in Part 3, Section B of the six-part training folder. **NOTE:** The individual checklists are **not** filed in each member's six-part training folder. A master checklist is filed in Part 3, Section B of the Master Training Plan (MTP) six-part training folder.

7. If the trainee does not accomplish the objective, review the areas which need remediation. Conduct a feedback concerning each module with the trainee, and document appropriately in the 6-part folder. As the trainer, when you are satisfied that the trainee is qualified to perform the task, he/she will be re-evaluated until the objective is met.

8. If the task which is being trained requires third-party certification by a task certifier/certifying official, the trainer first must ensure that the trainee is qualified to perform the task ***without assistance***. Then the trainee will be evaluated by a task certifier/certifying official. The tasks which require third-party certification are denoted with a "^" in Column 3E of the Career Field Education and Training Plan (CFETP). After third-party certification, training qualification is documented appropriately in the 6-part folder.

9. The QTPs are a necessary tool for standardizing refresher/sustainment training. Such standardization will benefit the CFETP training concept throughout each member's career. These documents also will be utilized for assessing/certifying the Aerospace Medical Service Specialist each time that he/she is assigned to a new duty position. The QTP developers' goal is to publish a usable document for certifying officials, trainers, and trainees for the purpose of enhancing on-the-job training for *Aerospace Medical Service Specialty* personnel. We value your first-hand expertise, and we encourage your feedback. Direct all inquiries to:

383d TRAINING SQUADRON/XUEAA
c/o 4N0X1 CDC WRITER/MANAGER
939 MISSILE ROAD STE 3
SHEPPARD AIR FORCE BASE, TEXAS 76311-2266
DSN: 736-6983

Volume 13 **Module 1**

OBTAINING ANKLE BRACHIAL INDEX

SUBJECT AREA:	Critical Care.
TASK(s):	Prepare supplies/equipment for obtaining ankle brachial index and performs procedure.
CFETP/STS REFERENCE(s):	SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	Doppler flow meter with probe, blood pressure cuff with manometer, acoustic gel, and skin marking pen.
TRAINING REFERENCE(s):	Handbook of Noninvasive Diagnostic Techniques in Vascular Surgery, (current edition); and Noninvasive Diagnostic Techniques in Vascular Disease, (current edition).
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in obtaining ankle brachial index.
OBJECTIVE:	The trainee will successfully demonstrate without error the performance aspects of obtaining Ankle Brachial Index.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Wash hands and don gloves		
2. Gather supplies		
3. Place appropriately sized blood pressure around first arm and palpate the brachial artery		
4. Apply ample gel over the artery		
5. Position the doppler probe over brachial artery and listen for arterial velocity		
6. Inflate the cuff until the signal disappears, then deflate cuff slowly and note return of signal.		
7. Document the systolic pressure result and annotate location		
8. Repeat procedure for the opposite arm		
9. Place the same arm compression cuff around the ankle above the malleolus Note: extremity color, temp, and check surgical site for swelling, drainage		
10. Palpate and/or probe the dorsalis pedis and posterior tibial arteries. Select the strongest/loudest site unless otherwise directed by physician's orders. Note the sites where the arteries are palpated/auscultated and mark them with the skin pen		
11. Apply ample acoustic gel over the selected arteries		
12. Place doppler probe over selected artery and acquire signal		
13. Inflate the cuff slowly with probe in place. Stop deflating cuff when signal fades		
14. Deflate the cuff slowly (2 to 3 mm/Hg per heart beat) and note the pressure at which the velocity flow signal returns		
15. Deflate the cuff completely		
16. Record data and repeat on opposite ankle		
17. Calculate the Ankle Brachial Index (ABI) using the following equation $\frac{\text{ankle systolic pressure}}{\text{greatest brachial systolic pressure}} =$ Index		
18. Record calculated data and compare with previous data (pre-operative and post-operative data). Alert nurse/physician to any change in ABI, color, temp of extremity		
19. Verbalize normal values: 1.00 or slightly greater		
20. Verbalize abnormal values: Claudication: 0.6-0.9 Severe Occlusive States: <0.5		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 2**

Performing Transurethral Bladder Pressures

SUBJECT AREA:	Critical Care.
TASK(s):	Set up/perform transurethral bladder pressure (IAP)
CFETP/STS REFERENCE(s):	19.4.3 SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	Transducer/pressure tubing (no vamp attachment), C-Clamp, 60cc Leur-Lock syringe, 18 gauge needle or angiocatheter, 500cc bag of 0.9% Normal Saline, pressure bag, transducer mount, nonsterile gloves, Providine iodine pads or swab sticks, pressure cable and monitor.
TRAINING REFERENCE(s):	AACN Procedure Manual for Critical Care, (current edition), Monitor Operator's Manual.
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in setup and operation of fluid filled hemodymanics and measuring transurethral bladder pressures.
OBJECTIVE:	The trainee will successfully demonstrate without error the setup/performance aspects of measuring transurethral bladder pressures.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Identify patient/explain procedure		
3. Gather supplies Equipment		
4. Wash hands/don gloves		
5. Place patient in supine position		
6. Maintain , open packages, secure all connections and verify that stopcock is adjusted appropriately		
7. Remove air from flush bag and assemble transducer set		
8. Hang flush bag inside pressure bag and on IV pole		
9. Place transducer in holder		
10. Prime pressure tubing using fast flush device (flush under gravity initially and then under pressure once line has been primed)		
11. Inspect system for air bubbles and remove if needed		
12. Pressure bag to 300 mmHg		
13. Attach transducer to pressure cable connected to monitor		
14. Rename pressure module to SP or CVP		
15. Level transducer at the patient's symphis pubis and zero		
16. Ensure transurethral catheter is in place		
17. Clamp catheter with C-Clamp distal to sampling membrane		
18. Ensure patient is in a supine position (verbalizes that patient should be in a sedated state for accurate measurements to take place)		
19. Connect 60cc leur-lock syringe to side of stopcock at the end of the pressure tubing		
20. Disconnect excess pressure tubing from end of stopcock, and replace with sterile 18g needle for intermittent monitoring or 18g angiocatheter for continuous monitoring (later method prevents the need for repeated punctures of the sampling port and may reduce the chance of needle stick injury)		
21. Turn stopcock off to needle and fill syringe with 50cc of saline from flush bag		
22. Clean sampling membrane with betadine or appropriate substitute		
23. Insert 18g needle or 18g angiocatheter; remove the needle and connect the catheter to the pressure tubing), connected to stopcock, into sampling membrane and turn stopcock off o transducer and open syringe (if using an angiocatheter thread the catheter into the port and connect to the pressure tubing)		
24. Inject 50cc's into bladder		
25. Keep needle in membrane and turn stopcock on to transducer/off to syringe. Secure 18g angiocatheter if continuous monitoring is required		
26. Observe pressure waveform and numbers on the monitor verbalize watching the number drop and reading the pressure when it stabilizes at 15 to 20 seconds for exact pressures		

27. Verbalize bladder pressures: Normal: zero to subatmospheric Post laporotomy: 3-15 mmHg		
28. Verbalize what dysfunction's appear after pressure exceeds 25 mmHg Hemodynamic, Pulmonary, and Renal		
29. Verbalize importance of the whole patient concept-following trends		
30. Remove needle from membrane and discontinue bladder pressures or secure 18g angiocatheter if continuous monitoring is required		
31. Document bladder pressure and subtract record 50cc's of instilled saline form the hourly urine output		
32. Discard supplies and wash hands		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 3**

SET-UP/ASSIST WITH DIAGNOSTIC PERITONEAL LAVAGE

SUBJECT AREA: Critical Care.

TASK(s): Set-up and assist with diagnostic peritoneal lavage.

CFETP/STS REFERENCE(s): SEI 487 specific AF form 1098 overprint

EQUIPMENT REQUIRED: Commercially prepared kit, sterile gloves, gown, mask or face shield, skin cleansing solution, sterile towels or drapes, local anesthetic, 10ml syringe with 25/27g needle, scalpel, angiocatheter, hemostat, 20ml syringe, sterile intravenous tubing (without valves) with appropriate connectors for lavage catheter and IV bag, warm 1000ml Lactated Ringer's, normal saline or antibiotic solution for infusion, three-way stopcock, suture, sterile 4X4's, sterile dressing, tape, IV tubing, and IV pole.

TRAINING REFERENCE(s): AACN Procedure Manual for Critical Care, (current edition); The Lippincott Manual of Nursing Practice, (current edition).

REMARKS/NOTES: Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in setup and assisting with diagnostic peritoneal lavage.

OBJECTIVE: The trainee will successfully demonstrate without error the performance aspects of set up and assisting with diagnostic peritoneal lavage.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

Vol.13 Module 3 ***Set-up and assist with Diagnostic Peritoneal Lavage***

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Identify patient/explain procedure		
3. Gather supplies/equipment		
4. Wash hands		
5. Assist patient to supine position		
6. Set up lavage equipment		
7. Assist with equipment and sterile field setup		
8. Assist physician in preparing incision site/puncture site, and inserting catheter		
9. Attach IV tubing to catheter; per physician's instructions infuse 700-1000 ml of fluid into peritoneal cavity		
10. Rotate patient from side to side		
11. After solution is infused, remove empty bag from the IV pole and lower below the abdominal level (near the floor) to drain or turn stopcock to drainage bag if using two bag set-up		
12. Rotate patient from side to side (if not contraindicated)		
13. Repeat lavage sequence as requested		
14. Calculate true drainage		
15. Prepare and send fluid for laboratory analysis		
16. Apply sterile dressing to wound site		
17. Dispose of equipment appropriately		
18. Wash hands		
19. Document procedure		
20. Observe patient closely for any type of deterioration		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

ASSISTING WITH ICE-WATER CALORIC TESTING (OCULOVESTIBULAR TESTING)

SUBJECT AREA: Critical Care.

TASK(s): Set-up and assist cold calorics (oculovestibular testing)

CFETP/STS REFERENCE(s): 19.7.5
SEI 487 specific AF form 1098 overprint

EQUIPMENT REQUIRED: 60cc syringe (catheter tip or lure-lock), 14 gauge IV Catheter, basin, iced water for irrigation.

TRAINING REFERENCE(s): AACN Procedure Manual for Critical Care, (current edition).

REMARKS/NOTES: Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with oculovestibular testing.

OBJECTIVE: The trainee will successfully demonstrate without error the performance aspects of assisting with oculovestibular testing.

EVALUATION INSTRUCTIONS:

5. After the trainee has received instruction, allow sufficient practice on each part of the task.

5. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

5. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Gather supplies.		
2. Wash hands.		
3. Assist physician in verifying tympanic membrane integrity		
4. Position patient and hold patient's head as requested.		
5. Assist with instillation of 50 ml iced water or normal saline into the external auditory canal		
6. Observe patient's eye movements during and following cold water instillation. Observe time interval between instillation and response.		
7. State the expected results: a. If eye movement is slow toward side that is being irrigated brainstem is intact and that is a normal response. b. No response, eyes moving in different directions, or only one eye moving would indicate brainstem not intact.		
8. Assess patient's tolerance to procedure.		
9. Discard used supplies.		
10. Wash hands		
11. Document procedure.		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 5**

ASSIST WITH VENTRICULOSTOMY PLACEMENT

SUBJECT AREA:	Critical Care.
TASK(s):	Set-up and assist with ventriculostomy placement
CFETP/STS REFERENCE(s):	19.7.1, 19.7.3, 19.7.4 SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	Sterile gloves, gowns, towels, drapes, eye protection, caps, microventricular catheter (35cm with trocar or 20cm) pressure transducer, cranial access kit, local anesthetic, drainage bag, preservative free saline, EDS (Externally Drainage System), razor, suture, IV pole, 10cc syringe, transducer, and dressing supplies.
TRAINING REFERENCE(s):	AACN Procedure Manual for Critical Care, (current edition). Ventriculostomy external drainage system manufacture's guidance, external monitor operators manual.
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in Assisting with ventriculostomy placement and monitoring.
OBJECTIVE:	The trainee will successfully demonstrate without error the performance aspects of measuring assisting with catheter Placement, obtaining ICP readings, and maintenance.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. This assessment should not be performed using real patient in an emergency situation.

4. Use the performance checklist to ensure all steps of the task are accomplished.

5. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Identify patient/explain procedure		
3. Gather supplies/equipment		
4. Wash hands		
5. EDS setup must be performed utilizing sterile technique		
6. Remove the EDS from sterile package		
7. Hang EDS from IV pole		
8. Attach pressure transducer adapter to main system stopcock and level to the patient's Foramen of Monro**. Note: No pressurized saline bag is used**		
9. Prime the system with preservative free saline. Remove all air bubbles		
10. Ensure that fluid drains from the flow chamber into the drainage bag		
11. Connect the transducer via pressure cable to ICP monitor		
12. Zero transducer		
13. Assist physician with catheter placement		
14. Connect EDS to catheter after catheter placement		
15. Set pressure limit "pop" off, (system will drain at appropriately set limit) according to physicians orders		
16. Set the main system stopcock open to the transducer, flow chamber and patient **(**note the setting for reading true ICP is with main stopcock off to flow chamber, but open to the patient line and the transducer)		
17. Document procedure		
18. Obtain readings according to physician's orders		
19. Monitor CSF drainage hourly		
20. Observe, report and document output		
REPLACING DRAINAGE BAG		
2. Close the distal drainage line slide clamp to prevent retrograde flow from the drainage connection line		
2. Using sterile technique, disconnect the drainage bag connection line from the drainage bag		
3. Discard according to hospital policy		
4. Connect new sterile drainage bag to the connection line and attach to system mounting panel		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 6**

Fiber-Optic Intracranial Pressure Monitoring

SUBJECT AREA:	Critical care.
TASK(s):	Set-up and assist with intracranial pressure (ICP) monitoring line placement
CFETP/STS REFERENCE(s):	19.7.1, 19.7.2, 19.7.3 SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	Sterile gloves, gowns, towels, eye protection, caps, Fiber-optic intracranial monitoring kit or fiber-optic microventricular kit, cranial access kit, ICP monitor and slave cable to connect to central monitoring system if available, razor, suture, and dressing supplies.
TRAINING REFERENCE(s):	AACN Procedure Manual for Critical Care, (current edition), Lippincot Manual of Nursing Practice, (current edition).
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with fiber-optic intracranial pressure monitoring Catheter insertion, and ICP pressure monitoring.
OBJECTIVE:	The trainee will successfully demonstrate without error the performance aspects of assisting with fiber-optic intracranial pressure monitoring device insertion, and obtain ICP pressures.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Identify patient/explain procedure		
3. Gather supplies/equipment		
4. Wash hands		
5. Don gloves and eye protection		
6. Shave access area		
7. Set-up monitor		
8. Assist physician with donning sterile attire		
9. Assist physician in establishing sterile field		
10. Hand physician cranial access kit		
11. Hand physician fiber-optic intracranial micro-senor		
12. Connect micro-sensor to monitor		
13. Perform in calibration/zero		
14. For drainable systems only connect drainage bag		
15. Observe patient and monitor during procedure for neurologic and vital sign Changes.		
16. Hand physician suture		
17. Assist physician in dressing site		
18. Document procedure		
OBTAINING INTRACRANIAL PRESSURES		
1. Obtain and record intracranial pressures as directed		
2. Monitor intracranial pressures and immediately notify nurse/physician of any deviation from normal		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 7**

SYNCHRONIZED CARDIOVERSION

SUBJECT AREA:	Critical Care
TASK(s):	Set-up and assist with synchronized cardioversion
CFETP/STS REFERENCE(s):	9.1.15.2.2.1 SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	Defibrillator/monitor, interphase material (multipurpose cable/pads, disposable conductive gel, or paste Resuscitation equipment and 12 lead ECG machine
TRAINING REFERENCE(s):	The Lippincott Manual of Nursing Practice, Current edition, AACN Procedure Manual for Critical Care, 4th Edition , 2001
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with synchronized cardioversion.
OBJECTIVE:	The trainee will successfully demonstrate without error the performance aspects of setting-up for and assisting with synchronized cardioversion.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
STANDARD DEFIBRILLATOR/MONITOR 1. Verify physician's order		
2. Gather supplies/equipment		
3. Wash hands		
4. Perform 12 lead ECG if requested		
5. Turn on monitor and apply conventional 3 or 5 lead configuration		
6. Prepare patient and defibrillator paddles with proper conductive medium		
7. Turn on ECG recorder for continuos printout		
8. Assure defibrillator is in synchronized mode		
9. Properly place paddles on the patient's chest or anterior/posterior position a. Anterior position – one paddle just right of sternum at 2nd interspace and the other just under left nipple b. Anterior-posterior position – one paddle on left infrascapular area and the other paddle at third interspace, upper sternum portion		
10. Set energy level and charge defibrillator paddles per physician request		
11. Assist nurse/physician in cardioversion		
12. Ensure all personnel are clear of contact with patient and equipment		
13. After cardioversion, assess for pulse		
14. Observe monitor for cardioversion of tachydysrhythmia and ECG rhythm		
15. Obtain 12 lead ECG if requested		
16. Clean defibrillator		
17. Discard supplies		
18. Wash hands		
19. Monitor vitals signs frequently		
20. Document procedure		
DEFIBRILLATOR WITH HAND FREE MULTIPURPOSE CABLE 1. Verify physician's order		
2. Gather supplies/equipment		
3. Wash hands		
4. Perform 12 lead ECG if requested		
5. Prepare patient and place standard 3 or 5 lead electrode configuration on		
6. Properly place disposable defibrillation/multifunction pads on patient a. Place round electrode labeled front directly over the patients cardiac apex b. Place the electrode labeled back between the patient's left scapula and spine at the level of the heart.		
7. Ensure both electrodes are firmly placed and have good skin contact		
8. Connect multifunction electrodes to monitor		
9. Turn on ECG recorder to desired ECG lead and set continuos printout		
10. Assure defibrillator is in synchronized mode		
11. Set energy level and charge defibrillator paddles per physician request		
12. Assist nurse/physician in cardioversion		

PERFORMANCE ITEM	SAT	UNSAT
13. Ensure all personnel are clear of contact with patient and equipment		
14. Observe monitor for cardioversion of tachydysrhythmia and ECG rhythm		
15. Obtain a 12 lead ECG if requested		
16. Clean defibrillator		
17. Discard supplies		
18. Wash hands		
19. Monitor frequent vital signs		
20. Document procedure		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 8**

SETUP AND ASSIST WITH TRANSCUTANEOUS PACING

SUBJECT AREA:	Critical Care.
TASK(s):	Set-up and assist with temporary transcutaneous pacing.
CFETP/STS REFERENCE(s):	19.1.3, 9.1.15.2.2.1, 9.4.2.3.3.. SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	External pulse generator or defibrillator with external pacing capabilities, disposable pads, and resuscitation equipment.
TRAINING REFERENCE(s):	The Lippincott Manual of Nursing Practice, (current edition), AACN Procedure Manual for Critical Care, (current edition).
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with transcutaneous pacing.
OBJECTIVE:	The trainee will successfully demonstrate without error the performance aspects of setting-up for and assisting with transcutaneous pacing.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Gather supplies/equipment		
3. Wash hands		
4. Prepare patient		
5. Turn on external pulse generator/defibrillator		
6. Place standard electrodes 3 or 5 lead configuration		
7. Connect ECG cable to monitor		
8. Adjust ECG to maximize R wave		
9. Properly place disposable defibrillation/multifunction pads on patient a. Place the electrode labeled front (anterior) on the left, fourth intercostals space, midclaviclar line. b. Place the electrode labeled back between the patient's left scapula and spine at the level of the heart. **Note: Never place electrode directly over the spine.**		
10. Ensure both electrodes are firmly placed and have good skin contact		
11. Connect multifunction electrodes/defibrillator pads to pulse generator		
12. Physician or nurse will set pacer settings and initiate		
13. Monitor ECG tracing for proper pacer function		
14. Monitor frequent vital signs		
15. Wash hands		
16. Document procedure		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 9**

SET-UP AND ASSIST WITH TRANSVENOUS PACING

SUBJECT AREA: Critical Care.

TASK(s): Set-up and assist with transvenous pacing catheter placement, set-up for flow directed pacing catheter placement

CFETP/STS REFERENCE(s): 9.1.15.2.2.1, 19.1.3, 19.6.7, 19.6.7.1, 19.6.7.2
SEI 487 specific AF form 1098 overprint

EQUIPMENT REQUIRED: Sterile gloves, gowns, drapes, pacing leads (transvenous, balloon-tipped bipolar wire, pulmonary artery catheter and pacing leads), ECG monitor, pacer and nine-volt battery, connecting cables, percutaneous introducer kit, alligator clips, dressing supplies, IV flush, 12 lead ECG machine, and resuscitation equipment.

TRAINING REFERENCE(s): AACN Procedure Manual for Critical Care, 4th (current edition), Lippincott Manual of Nursing Practice, (current edition).

REMARKS/NOTES: Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with transvenous pacing set-up and insertion.

OBJECTIVE: The trainee will successfully demonstrate without error the performance aspects of setting up for and assisting with assisting with transvenous pacing set-up and insertion.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Identify patient/explain procedure		
3. Gather supplies, equipment and test pacer battery		
4. Wash hands		
5. Assist patient to supine position. NOTE: Patient must be placed on cardiac monitor prior to starting the procedure		
6. Prepare IV flush for introducer if using central venous access kit (introducer)		
7. Assist physician in donning gown, gloves and eye protection		
8. Assist physician in site preparation		
9. Assist with introducer/dilator insertion. NOTE: Monitor cardiac rhythm continuously during insertion		
10. Connect IV tubing/flush to catheter and adjust flow rate		
11. Assist physician with pacing lead insertion a. If insertion is done utilizing fluoroscopy, all personnel must use adequate shielding. b. If done utilizing ECG machine, connect patient limb leads and attach distal pacing electrode to chest lead of ECG with alligator clip or connector that is available with some kits and continuously monitor the "V" lead during insertion. Position of catheter is verified by unipolar intracavitary electrogram		
BIPOLAR PACING CATHETER 1. Assist physician with pacing catheter placement Monitor cardiac rhythm continuously during insertion		
2. Apply occlusive sterile dressing over insertion site		
3. Apply protective plastic cover over pacemaker controls		
4. Wash hands		
5. Document procedure		
6. Monitor cardiac rhythm and vital signs		
BALLOON-TIPPED PACING CATHETER 1. Assist physician with catheter insertion		
2. Inflate balloon when directed		
3. Monitor cardiac rhythm during insertion		
4. Secure pacing catheter		
5. Apply protective plastic cover over pacemaker controls		
6. Wash hands		
7. Document procedure		
Monitor cardiac rhythm and vital signs		

PULMONARY ARTERY PACING (PA) CATHETER	SAT	UNSAT
1. Assist physician with PA catheter insertion		
2. Initiate hemodynamic monitoring		
3. Assist physician with PA artery pacing leads insertion		
4. Secure catheter and apply protective plastic cover over pacemaker controls		
5. Do not obtain pulmonary capillary wedge pressures unless directed by physician		
6. Wash hands		
7. Document procedure		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 10**

ASSIST WITH INTRAAORTIC BALLOON PUMP MONITORING

SUBJECT AREA: Critical Care.

TASK(s): Set-up, assist and monitor Intraaortic Balloon Pump insertion (IABP)

CFETP/STS REFERENCE(s): 19.6.8
SEI 487 specific AF form 1098 overprint

EQUIPMENT REQUIRED: Intraaortic balloon pump, balloon catheter, helium, pressure transducer assembly, heparinized solution, sterile dressing supplies, and cardiac monitor.

TRAINING REFERENCE(s): The Lippincott Manual of Nursing Practice, (current Edition), AACN Procedure Manual for Critical Care, (current edition).

REMARKS/NOTES: Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with IABP monitoring.

OBJECTIVE: The trainee will successfully demonstrate without error the performance aspects of assisting with IABP monitoring.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Wash hands		
2. Perform cardiovascular, peripheral vascular, and hemodynamic assessments every 15 to 60 minutes NOTE: Catheter placement will normally be done in the operating room		
3. Maintain HOB elevated less than 45 degrees (15 to 30 degrees ideal)		
4. No movement or flexing of extremity with intraaortic balloon catheter (IAB)		
5. Turn patient every 2 hours and maintain alignment		
6. Logroll extremity with the IAB(Intraaortic Balloon) catheter		
7. Perform active or passive range of motion exercises every 2 hours, with exception of extremity with IAB catheter		
8. Assess IAB catheter insertion site every 2 hours for hematomas or bleeding		
9. Frequently assess extremity circulation		
10. Maintain two means of obtaining ECG tracings		
11. Select ECG lead that optimizes the R wave		
12. Obtain coagulation blood samples per physician's orders		
13. Monitor frequent vital signs, intake and output, and hemodynamic parameters		
14. Wash hands		
15. Document		
REMOVAL OF IAB CATHETER 1. Gather supplies		
2. Wash hands		
3. Assist physician with balloon removal		
4. Hold pressure for 30 to 45 minutes		
5. Assess insertion site for bleeding or hematoma		
6. Monitor frequent vital signs and hemodynamic parameters		
7. Apply a pressure dressing		
8. Assess perfusion of affected extremity		
9. Maintain leg immobility		
10. Clean area and discard used supplies according to hospital policy		
11. Reassess frequently for bleeding, extremity perfusion, and hemodynamic Changes		
12. Wash hands		
13. Document procedure		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 11**

DRAWING MIXED VENOUS BLOOD SAMPLE

SUBJECT AREA: Critical Care.

TASK(s): Draw mixed venous blood sample

CFETP/STS REFERENCE(s): 19.6.5
SEI 487 specific AF form 1098 overprint

EQUIPMENT REQUIRED: Non-sterile gloves, 5ml and 10 ml syringes, heparinized blood gas sampling syringe, container of ice if drawing blood gas, sterile 4x4, sterile dead end cap

TRAINING REFERENCE(s): The Hemodynamic Monitoring: Invasive and Noninvasive Clinical Application, (current edition), and AACN Procedure Manual for Critical Care, (current edition).

REMARKS/NOTES: Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in drawing mixed venous blood samples.

OBJECTIVE: The trainee will successfully demonstrate without error the performance aspects of drawing mixed venous blood samples.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Gather supplies		
3. Wash hands		
4. Identify and explain procedure to patient		
5. Don gloves		
6. Locate the sampling stopcock connected to the distal port of the pulmonary artery catheter and remove cap		
7. Attach 10-ml syringe		
8. Turn stopcock OFF to flush solution		
9. Aspirate 5 ml with syringe to clear line of flush solution, then close stopcock to halfway position and remove/discard syringe		
10. Attach sampling syringe and turn stopcock OFF to flush		
a. Prepare blood gas syringe a. For pre-heparinized syringe simply collapse plunger b. For non-heparinized syringe draw 1ml of heparinized solution and coat inside syringe walls. Discard excess heparin prior to drawing sample		
12. Slowly draw mixed venous sample (1ml per 20 seconds, this will avoid arterializing the sample)		
13. Close stopcock and remove sampling syringe		
14. Attach sterile syringe to stopcock and open to syringe		
15. Irrigate into syringe until stopcock is clear		
16. Turn OFF sampling port, remove and discard syringe		
17. Replace with sterile dead end cap		
18. Flush line until traces of blood are removed		
19. Observe monitor to ensure line patency and return of hemodynamic waveform		
20. Correctly label specimens as "mixed venous gas" and send to lab Note: Blood gas specimen must be placed in ice container and immediately transport to lab		
21. Wash hands		
22. Document procedure		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 12**

SET-UP AND ASSIST WITH INTUBATION/EXTUBATION

SUBJECT AREA: Critical Care.

TASK(s): Assist with endotrachael intubation, extubation, perform endotracheal care

CFETP/STS REFERENCE(s): 9.1.19.1, 9.1.6.2.1, 19.5.4.6
SEI 487 specific AF form 1098 overprint.

EQUIPMENT REQUIRED: Personal protective equipment (gloves and eye protection), laryngoscope handle, curved or straight blade, endotracheal tube, resuscitation bag/mask, stylet, oral airway, adhesive tape or tube fixation system, sterile anesthetic lubricant jelly (water-soluble), anaesthetic spray, 10-ml syringe, suction source, suction catheter and tonsil suction.

TRAINING REFERENCE(s): The Lippincott Manual of Nursing Practice, (current edition), AACN Procedure Manual for Critical Care, (current edition).

REMARKS/NOTES: Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with intubation and extubation.

OBJECTIVE: The trainee will successfully demonstrate without error the performance aspects of assisting with patient intubation and extubation.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
INTUBATION 1. Gather supplies		
2. Wash hands and don protective apparel		
3. Identify patient and explain procedure		
4. Assemble laryngoscope and test blade light bulb		
5. Ensure suction is available and functioning		
6. Connect resuscitation bag to oxygen supply		
7. Remove bed headboard if needed		
8. Prepare tape or tube fixation device		
9. Preoxygenate patient prior to intubation		
10.Assist physician in placing endotracheal tube		
11.Connect endotracheal tube to ventilator or provide manual ventilation's		
12.Observe for bilateral chest expansion		
13.Assist with securing endotracheal tube in place		
14.Record distance from proximal end of tube to point where tube reaches the mouth		
15.Auscultate breath sounds		
16.Obtain chest x-ray per physician's orders		
17.Measure cuff pressure with manometer		
18.Monitor arterial blood gas oxygen saturation levels closely		
19.Suction as needed		
20.Wash hands		
21.Document procedure		
EXTUBATION 1. Gather supplies/equipment a. Tonsil suction, 10-ml syringe, bag-mask, requested oxygen mask, and eye protection		
2. Wash hand		
3. Identify and explain procedure to patient		
4. Elevated patients head of bed to semi-Fowler's position (unless contraindicated)		
5. Set-up requested oxygen mask connected to oxygen supply		
6. Have intubation supplies and resuscitation bag connected to oxygen supply readily available		
7. Assist physician or respiratory therapy in obtaining weaning parameters		
8. Assist with endotracheal tube and oral pharyngeal airway suctioning		
9. Assist in removing tape or tube fixation device		

10. Assist physician with cuff deflation and endotracheal tube removal	
11. Immediately place patient on supplemental oxygen as requested by physician	
12. Closely monitor patient for any signs and symptoms of airway obstruction or respiratory insufficiency	
13. Wash hands	
14. Document procedure	
CHANGING SOILED TAPE/TUBE TUBE HOLDER 1. Wash-hands	
2. Prepare tape or other securing device	
3. Don gloves	
4. Person 1 stabilizes tube with one hand; person 2 cuts soiled tape/securing device and remove (second person will maintain manual control of ET tube until secured)	
5. Clean mouth and gums	
6. Reposition oral tube to other side of mouth	
7. Secure endotracheal tube	
8. Apply lubricant to lips	
9. Check breath sounds	
10. Discard gloves	
11. Wash hands	
12. Document procedure	
FINAL RESULT:	

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 13**

ENDOTRACHEAL/TRACHEOSTOMY SUCTIONING

SUBJECT AREA: Critical Care .

TASK(s): Prepare supplies/equipment needed and perform endotracheal/tracheostomy tube suctioning

CFETP/STS REFERENCE(s): 9.1.6.2.1, 9.1.6.2.2
SEI 487 specific AF form 1098 overprint

EQUIPMENT REQUIRED: Eye protection, sterile gloves, suction catheter, suction kit, or closed suction system, suction source, resuscitation bag connected to 100% oxygen source, sterile water, normal saline, and sterile cup of water.

TRAINING REFERENCE(s): The Lippincott Manual of Nursing Practice, Current Edition, AACN Procedure Manual for Critical Care, (current edition).

REMARKS/NOTES: Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in performing endotracheal and tracheostomy suctioning.

OBJECTIVE: The trainee will successfully demonstrate without error the setup/performance aspects of endotracheal and tracheostomy suctioning.

EVALUATION INSTRUCTIONS:

6. After the trainee has received instruction, allow sufficient practice on each part of the task.

7. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

8. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
OPEN TECHNIQUE		
1. Identify patient/explain procedure		
2. Gather supplies/equipment		
3. Wash hands		
4. Open sterile gloves		
5. Open suction catheter package and set-up sterile field (the outer diameter of the catheter should be no greater than one half the inner diameter of the artificial airway)		
6. Set-up sterile container filled with sterile water		
7. If patient is on mechanical ventilation, test to ensure that disconnection of ventilator attachment is possible with one hand		
8. Don sterile gloves and designate one hand to remain sterile		
9. Use sterile hand to remove catheter from package and curl around fingers		
10. Connect the catheter to suction source using the non-sterile hand		
11. Hyperoxygenate the patient with 100% oxygen for at least 30 seconds using one of the three following methods: press hyperoxygenation button on the ventilator, increase baseline FIO_2 on ventilator or disconnect patient from ventilator and administer 5-6 breaths over 30 seconds using a bag valve mask		
12. Using the non-sterile hand, disconnect the patient from the ventilator		
13. **Gently** insert catheter tip into artificial airway without applying suction (stop if you meet resistance or when patient starts coughing)		
14. Withdraw the catheter 2-3 cm then apply suction and quickly rotate while withdrawing		
15. Limit suction to no more than 10 seconds		
16. Bag patient between suction passes with approximately 4-5 manual ventilation's or place ventilator on suction mode		
17. Instill 3-5 ml of sterile normal saline in artificial airway to loosen secretions **if needed**, or per local protocol, bag vigorously, then suction (done only if required for thick secretions)		
18. Rinse catheter between passes by inserting tip in cup of sterile water and applying suction		
19. Continue making suction passes, bagging patient between passes, until clear of secretions, but no more then four passes		
20. Give four to five "sighs" with bag or ventilator		
21. Return patient to ventilator		
22. Suction oralpharynx above the artificial airway cuff		
23 Wash hands		
24. Note any change in vitals and patients tolerance to procedure		

CLOSED TECHNIQUE		
1. Identify patient/explain procedure		
2. Gather supplies/equipment		
3. Wash hands		
4. Don non-sterile gloves		
5. Connect suction tubing to closed system suction port		
6. Hyperoxygenate for at least 30 seconds using one of the methods using one the following methods: press hyperoxygenation button on the ventilator, increase baseline FIO_2 on ventilator or disconnect patient from ventilator and administer 5-6 breaths over 30 seconds using a bag valve mask		
7. **Gently** insert catheter tip into artificial airway without applying suction; stop when resistance is met or when patient starts coughing, and pull back 1 cm		
8. Place the dominant thumb over the control vent of the suction port, apply continuous or intermittent suction for no more than 10 seconds as you withdraw the catheter into the sterile sleeve of the closed suction device		
9. Repeat steps 6 through 8 as needed		
10. Clean suction catheter with sterile saline until clear; being careful not to instill solution into the endotracheal tube		
11. Suction oralpharynx above the artificial airway cuff		
12. Wash hands		
13. Document/note any change in vitals and patients tolerance to procedure		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 14**

MONITOR PATIENT ON MECHANICAL VENTILATION

SUBJECT AREA:	Critical Care.
TASK(s):	**M**onitor patient on mechanical ventilator
CFETP/STS REFERENCE(s):	9.2.5.2 SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	**TO BE COMPLETED BY RT**
TRAINING REFERENCE(s):	The Lippincott Manual of Nursing Practice, (current edition), AACN Procedure Manual for Critical Care, (current edition)
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in monitoring patients on mechanical ventilation.
OBJECTIVE:	The trainee will successfully demonstrate without error the performance aspects of monitoring patients on mechanical ventilation

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Identify patient/explain procedure		
3. Gather supplies/equipment		
4. Wash hands		
TO BE COMPLETED BY RT		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 15**

ASSIST WITH PERCUTANEOUS (BEDSIDE) TRACHEOSTOMY PLACEMENT

SUBJECT AREA: Critical Care.

TASK(s): Set-up and assist with percutaneous tracheostomy placement.

CFETP/STS REFERENCE(s): 19.4.2
SEI 487 specific AF form 1098 overprint

EQUIPMENT REQUIRED: Sterile gloves, gowns, towels, eye protection, caps, Percutaneous tracheostomy tray, cuffed tracheostomy tube, twill tape, 10 cc syringe, sterile 4x4 gauze sponges, Povidine-iodine solution, Xylocaine with epinephrine, razor, suture, 5 cc syringe with 23- or 25-gauge needle, suction source and equipment, O2 source, AMBU Bag connected to 100% O2, airway swivel, and Emergency cardiac cart.

TRAINING REFERENCE(s): AACN Procedure Manual for Critical Care, (current edition), and The Lippincott Manual of Nursing Practice, (current edition).

REMARKS/NOTES: Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with percutaneous tracheostomy placement.

OBJECTIVE: The trainee will successfully demonstrate without error the performance aspects of assisting with percutaneous tracheostomy placement

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. Note. This assessment should not be performed using real patient in an emergency situation.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

Vol.13 Module 15 *Assist With Percutaneous (Bedside) Tracheostomy Placement*

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Identify patient/explain procedure		
3. Gather supplies/equipment		
4. Wash hands		
5. Ensure patient is on continuous cardiac monitor		
6. Don gloves and eye protection		
7. Hyperoxygenate patient		
8. Suction endotracheal tube and oropharynx		
9. Obtain vital signs		
10. Ensure patency of intravenous catheter or establish access		
11. Nurse/physician will administer sedative or analgesics according to local protocol		
12. Assist physician with preparing insertion site, establishing a sterile field and donning sterile attire		
13. Assist physician with tracheostomy placement as needed		
14. Monitor ECG monitor continuously during procedure		
15. Secure trach ties and apply sterile dressing		
16. Attach swivel adapter to tracheostomy tube		
17. Replace oxygen source or connect to mechanical ventilator		
18. Reassess patient's vital signs and respiratory status		
19. Place obturator in a protective bag secured at the bedside. **Keep an extra properly sized trach tube at the bedside**		
20. Obtain chest x-ray and ABG as requested		
21. Monitor insertion site for bleeding		
22. Wash hands		
23. Document procedure		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 16**

SET-UP AND ASSIST WITH PERICARDIOCENTESIS

SUBJECT AREA:	Critical care.
TASK(s):	Assist with medical examinations/special procedures: pericardiocentesis
CFETP/STS REFERENCE(s):	19.4.1 SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	Sterile gloves, gowns, towels, eye protection, caps, Pericardiocentesis tray, 2 inch adhesive tape, 16 or 18 gauge cardiac needle or catheter over the needle in 3 inch length, skin antiseptic, 1%-2% lidocaine, 10-cc, 5-cc, and 3cc syringes (2 of each), alligator clip, three-way stopcock, ECG machine, equipment for cardiopulmonary resuscitation
TRAINING REFERENCE(s):	AACN Procedure Manual for Critical Care, (current edition); Lippincott Manual of Nursing Practice, (current edition).
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with performance pericardiocentesis.
OBJECTIVE:	The trainee will successfully demonstrate without error the performance aspects of assisting with a pericardiocentesis.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Identify patient/explain procedure and validate informed consent		
2. Gather supplies/equipment		
3. Wash hands		
4. Position patient with HOB elevated at 30-60 degree angle		
5. Apply limb leads of 12 lead ECG		
6. Have defibrillator/pacemaker available		
7. Assist physician with donning sterile attire		
8. Assist physician with establishing a sterile field and opening packages		
a. Assist with the connection of one end of alligator clip to the needle and the other end to the V-lead of the ECG		
10. Assist physician with the procedure		
11. Monitor patient's ECG, vital signs, and venous pressure continuously during procedure		
12. Assist physician cleansing antiseptic solution from skin and applying a sterile dressing		
13. Send specimens to lab		
14. Monitor patient closely post-procedure a. Watch for rising venous pressures and falling arterial pressure b. Monitor vital signs closely and report any changes immediately		
15. Wash hands		
16. Document procedure		
FINAL RESULT:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 17**

SET-UP AND ASSIST WITH PARACENTESIS

SUBJECT AREA:	Critical Care
TASK(s):	Assemble supplies and equipment/Assist with: paracentesis/thoracentesis
CFETP/STS REFERENCE(s):	9.1.6.1.4 SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	Sterile gloves, gowns, towels, eye protection, caps, paracentesis tray, 2 inch adhesive tape, local anesthetic, collection bottles (vacuum bottle), skin prep tray with antiseptic, specimen containers.
TRAINING REFERENCE(s)	The Lippincott Manual of Nursing Practice, (current edition); AACN Procedure Manual for Critical Care, (current edition).
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with paracentesis.
OBJECTIVE:	The trainee will successfully demonstrate without error the performance aspects of setting-up for and assisting with paracentesis.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Identify patient/explain procedure and validate informed consent		
2. Gather supplies/equipment		
3. Wash hands		
4. Position patient as requested by physician: a. For Paracentesis place patient in supine position b. For Thoracentesis patient is usually placed with HOB elevated at 45-90 degrees or setting on the side of the bed with back near the edge of the bed		
5. Assist in preparing insertion site with antiseptic solution		
6. Have collection bottle and tubing ready		
7. Assess pulse and respiratory status frequently during the procedure		
8. Assist with injection of local anesthetic		
9. Assist with insertion of trocar or needle		
10. Assist with withdrawal of ascitic fluid a. Connect tubing to stopcock that is already attached the trocar or needle b. Connect other end of tubing to vacuum bottle c. Monitor drainage bottle as fluid drains slowly		
11. Record amount and characteristic of fluid		
12. Monitor patient during procedure		
13. Assist physician cleansing antiseptic solution from skin and applying sterile a dressing		
14. Prepare and send specimens to lab		
15. Wash hands		
16. Document procedure		
17. Check blood pressure and vital signs every half hour for two hours, and every hour for four hours then every four hours for 24 hours		
18. Watch for leakage or scrotal edema		
19. Report any changes immediately		
FINAL RESULTS:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee’s OJT record.

Volume 13 **Module 18**

ASSISTING WITH LUMBAR PUNCTURE

SUBJECT AREA:	Critical Care.
TASK(s):	Assemble supplies and equipment/Assist with: Lumbar puncture
CFETP/STS REFERENCE(s):	9.1.6.1.5 SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	Sterile gloves, gowns, towels, eye protection, caps, Lumbar puncture tray, local anesthetic, skin antiseptic, Band-Aid.
TRAINING REFERENCE(s):	The Lippincott Manual of Nursing Practice, (current edition); and AACN Procedure Manual for Critical Care, (current edition).
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with lumbar punctures.
OBJECTIVE:	The trainee will successfully demonstrate without error the performance aspects of setting-up for and assisting with the performance of lumbar punctures.

.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Identify patient/explain procedure and validate informed consent		
2. Gather supplies/equipment		
3. Wash hands		
4. Position patient as requested by physician, usually lateral decubitus (fetal) position with head and neck flexed and knees up towards chest		
5. Assist patient with maintaining proper position		
6. Assist physician in preparing insertion site with antiseptic solution		
7. Assist physician in establishing sterile field		
8. Assist with injection of local anesthetic		
9. Monitor patient's neurologic and respiratory status during procedure		
10. Assist physician with procedure and collection of CSF		
11. Assist physician with cleansing antiseptic solution from skin and applying sterile a dressing		
12. Prepare and send specimens to lab		
13. Instruct patient to remain prone for at least 3 hours		
14. Wash hands		
15. Document procedure		
16. Check neurologic and respiratory status every 15 minutes for the first hour, every hour for four hours and then every four hours for 24 hours		
17. Watch for leakage around puncture site		
18. Report any changes immediately		
FINAL RESULTS:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 19**

SET-UP AND ASSIST WITH ESOPHAGOGASTRIC TAMPONADE TUBE PLACEMENT

SUBJECT AREA: Critical Care

TASK(s): Assist with esophagogastric tamponade tubes

CFETP/STS REFERENCE(s): SEI 487 specific AF form 1098 overprint.

EQUIPMENT REQUIRED: Sterile gloves, gowns, drapes, tamponade tube (Linton, Minnesota, or Sengstaken-Blackmore), 16 or 18 Fr NG tube and suture material (if using Sengstaken-Blackmore Tube), irrigation kit, towels and emesis basin, NS for irrigation, water soluble lubricant, topical anesthetic agent, weight with balanced suspension traction apparatus or football helmet with face mask or guard, sphygmomanometer, Y connector, four rubber-shod clamps, scissors, adhesive tape, two suction setups with tubing, endotracheal suction equipment, emergency intubation equipment, and cardiac monitor.

TRAINING REFERENCE(s): The Lippincott Manual of Nursing Practice, (current edition); AACN Procedure Manual for Critical Care, (current edition).

REMARKS/NOTES: Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with esophagogastric tamponade tube placement and care of patient with tube in place.

OBJECTIVE: The trainee will successfully demonstrate without error the performance aspects of setting up for and assisting with esophagogastric tamponade tube placement and care of patient with tube in place

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the CFETP. All recurring evaluations should be documented on AF Form 1098.

Vol.13 Module 19 Set-up and Assist with Esophagogastric Tamponade Tube Placement

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Identify patient/explain procedure		
3. Gather supplies and equipment		
4. Wash hands		
5. Don non-sterile gloves		
6. Position patient: high Fowler's, semi-Fowler's, or left lateral as requested by physicians		
7. Ensure patient is on continuous cardiac monitor		
8. Prepare suction equipment and test		
9. Suction large amounts of blood or clots from the mouth		
10. Insert oral airway or bite block if tube is being passed orally		
11. Assist physician with tamponade tube lubrication and insertion (if using Sengstaken-Blackmore tube, physician may affix 18 French NG tube aside Tamponade tube with suture material)		
12. Assist physician in confirming placement		
13. Physician will inflate gastric balloon and apply gentle traction to tube after x-ray confirmation of placement		
14. Secure tube per physicians instructions a. Apply gentle traction with 1 to 2 lb. of wt attached to the tamponade tube with balanced suspension traction b. Or tape tube to sponge cube as it exits nostril and tape sponge cube to nose if tube is passed nasally, or tape securely to cheek if passed orally c. Or apply football helmet to patient, and tape tube to mouth guard on helmet		
15. Mark tube with a piece of tape as it exits the mouth or nose		
16. Lavage and connect to suction as directed by physician		
17. Physician will inflate esophageal balloon if needed to control bleeding a. Connect one end of Y connector to esophageal balloon lumen b. Connect another end of Y connector to rubber tubing of sphygmomanometer bulb c. Connect last end of Y connector to sphygmomanometer		

18. Double clamp esophageal balloon lumen		
19. Provide nare or oral care every 2 hours		
20. Label each port to prevent accidental deflation or irrigation		
21. Maintain large scissors at bedside for emergency tube deflation		
22. Monitor tube position and steady traction application		
23. Tamponade therapy will be discontinued in stages per physician		
24. Observe for recurrence of bleeding		
25. Wash hands		
26. Document		
FINAL RESULTS:		

FEE BACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 20**

SET-UP AND ASSIST WITH CONTINUOUS TONOMETRIC GASTRIC SUMP PLACEMENT/OPERATION

SUBJECT AREA:	**Critical Care**.
TASK(s):	Prepare supplies and equipment and assist with Continuous Gastric Tonometer sump insertion.
CFETP/STS REFERENCE(s):	SEI 487 specific AF form 1098 overprint.
EQUIPMENT REQUIRED:	TRIP Continuous NGS Catheter, water-soluble lubricating material, Hypoallergenic adhesive tape
TRAINING REFERENCE(s):	Comprehensive package instructions for Tonometric Catheter, Continuous Tonometric Monitoring device Operators Manual, AACN Procedure Manual for Critical Care, (current edition); Lippincott Manual Of Nursing Practice, (current edition).
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in assisting with continuous gastric tonometric sump insertion and operation.
OBJECTIVE:	The trainee will successfully demonstrate without error the performance aspects assisting with continuous gastric tonometric sump insertion and operation.

EVALUATION INSTRUCTIONS:

1. After the trainee has received instruction, allow sufficient practice on each part of the task.

2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

3. Use the performance checklist to ensure all steps of the task are accomplished.

4. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the 797 . All recurring evaluations should be documented on AF Form 1098.

Vol.13 Module 20 *Set-Up and Assist with Continuous Tonometric Gastric Sump Placement/Operation*

PERFORMANCE ITEM	SAT	UNSAT
1. Verify physician's order		
2. Gather supplies/equipment		
3. Identify patient/explain procedure		
4. Don non-sterile gloves		
5. Ensure patient is on continuous cardiac monitor		
6. Assess vital signs		
7. Position patient: high Fowler's, semi-Fowler's, or left lateral as requested by physicians		
8. Assist physician with Tonometric tube lubrication and insertion		
9. Insert oral airway or bite block if tube is being passed orally		
10. Assist physician in confirming placement		
11. Secure catheter to nose or lips depending on insertion method		
12. Ensure catheter is kink free		
13. Connect to Continuous Tonometric Monitor		
14. Reassess vital signs and respiration's		
15. Monitor and report gastric values per physicians orders		
16. Provide oral or nares care every 2 hours		
17. Wash hands		
18. Document		
Removal 1. Verify physician's orders		
2. Gather supplies and equipment		
3. Identify patient/explain procedure		
4. Don non-sterile gloves		
5. Instruct patient to take a deep breath and hold		
6. Slowly and evenly remove tube		
7. Assist patient with oral hygiene		
8. Dispose of supplies properly		
9. Wash hands		
10. Document procedure		
FINAL RESULTS:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.

Volume 13 **Module 21**

HEMODYNAMICS WAVEFORM RECOGNITION

SUBJECT AREA:	**Critical Care**.
TASK(s):	**Wave Form Recognition:** Right Atrium (RA), Right Ventrical (RV), Pulmonary Artery (PA), Pulmonary Capillary Wedge (PAW)
CFETP/STS REFERENCE(s):	19.1.2.1, 19.1.2.2, 19.1.2.3, 19.1.2.4, 19.6.1.6 SEI 487 specific AF form 1098 overprint
EQUIPMENT REQUIRED:	Cardiac monitor with hemodynamic monitoring capabilities, two channel strip recorder
TRAINING REFERENCE(s):	AACN Procedure Manual for Critical Care, (current edition); Lippincott Manual Of Nursing Practice, (current edition); Hemodynamic Monitoring Invasive and Noninvasive Clinical Application, (current edition); hemodynamic monitoring equipment operators manual
REMARKS/NOTES:	Review steps of the process one-on-one with medical technician and/or nursing personnel skilled and verified in hemodynamic waveform recognition. (**Note: waveforms should always be compared with EKG rhythm to calculate correct measurements)**
OBJECTIVE:	The trainee will successfully demonstrate the performance aspects of identifying without error pulmonary catheter waveforms, to include: Right Atrium (RA), Right Ventricle (RV), Pulmonary Artery (PA), and Pulmonary Artery Wedge (PAW)

EVALUATION INSTRUCTIONS:

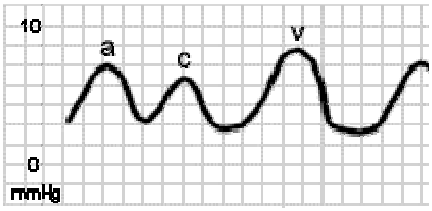
1. After the trainee has received instruction, allow sufficient practice on each part of the task.

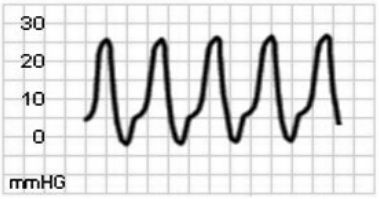
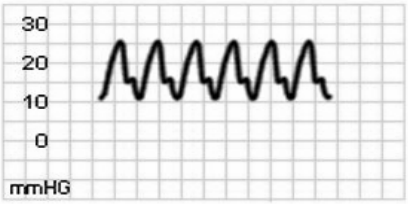
2. The evaluator will **STOP** the procedure immediately and correct the trainee if performance could become detrimental to patient safety at any time.

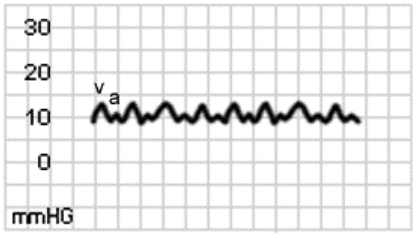
3. Ensure waveforms are graphed with the EKG strip for the purpose of identifying the four cardiac hemodynamic waveforms.

4. Use the performance checklist to ensure all steps of the task are accomplished.

5. Document task competency upon completion of the evaluation in the trainee's OJT record. Initial evaluation should be documented in the 797. All recurring evaluations should be documented on AF Form 1098.

PERFORMANCE ITEM	SAT	UNSAT
1. Identify characteristics of Right Atrial waveform:		
a. Normal pressures 0 to 8 mm Hg		
b. Waveform characterized by constant movement of the *a and v waves* in the baseline		
c. The *a wave* is found with in the PR interval of the EKG rhythm		
d. The *c wave* is found mid to end QRS of the EKG rhythm		
e. The *v wave* is found after the T wave in the EKG rhythm		
f. **Fig 1-1** Right Atrial Waveform  **Fig 1-1**		
2. Identify characteristics of Right Ventricle waveform:		
a. Normal pressures 15- 25 mm Hg systolic, 0-8 mm Hg diastolic		
b. Characterized by sharp upstroke rising to a peak pressure which is normally two to three times greater than the mean right atrial pressure.		
c. Systole is after the QRS complex but before the peak of the T wave		
d. The sharp down stroke which then levels off as the baseline directly measures RVEDP (Right Ventricle End Diastolic Pressure) Note the absence of the dicrotic notch		
e. **Note:** Ventricular arrhythmias such as premature ventricle contractions, ventricular tachycardia, or ventricular fibrillation may occur during insertion of the pulmonary artery catheter		

	SAT	UNSAT
f. **Fig 1-2** Right Ventricle Waveform  **Fig 1-2**		
3. Identify characteristics of Pulmonary Artery (PA) waveform:		
a. Normal pressures 15 - 25 mm Hg systolic, 6 -12 mm Hg diastolic		
b. Rapid upstroke to systole		
c. Smooth progressive runoff to diastole		
d. Presence of a dicrotic notch (closure of pulmonic valve)		
e. Systole is found after the QRS and before peak of T wave		
f. Diastole is found near the end of QRS		
g. **Fig 1-3** Pulmonary Artery waveform  **Fig 1-3**		
4. Identify characteristics of Pulmonary Artery Wedge Pressure (PAWP) waveform:		
a. Normal values are 4 -12 mm Hg		
b. Characterized a dramatic change and flattening of the PA waveform tracing.		
c. PAWP is the most accurate reflection of left atrial pressure, and therefore of left ventricular end-diastolic pressure (LVEDP), or preload.		
d. The *a wave* is found near the end of the QRS of the EKG rhythm		
e. The *c wave* is not usually seen		
f. The *v wave* is found after the T wave in the EKG rhythm		

g. **Fig 1-4** Pulmonary Artery Wedge	SAT	UNSAT
 **Fig 1-4**		
FINAL RESULTS:		

FEEDBACK: Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, document the results in the trainee's OJT record.